

REMARKS

Claims 1 through 75 are currently pending in the application.

This amendment is in response to the Final Office Action of April 1, 2003.

Claims 1 through 6, 10 through 17, 21 through 27, 31 through 37, 41 through 49, 51 through 55, 57 through 64 and 66 through 73 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Satoh (U.S. Patent 6,338,980) in view of Bennett et al. (U.S. Patent 6,478,918).

Claims 7 through 9, 18 through 20, 28 through 30, 38 through 40, 50, 56, 65, 74 and 75 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Satoh (U.S. Patent 6,338,980) in view of Bennett et al. (U.S. Patent 6,478,918) as applied above, and further in view of the admitted prior art.

After carefully considering the cited prior art, the rejections, and the Examiner's comments, Applicants have amended the claimed invention to clearly distinguish over the cited prior art.

Applicants further submit that to establish a *prima facie* case of obviousness under 35 U.S.C. § 103 three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the cited prior art reference must teach or suggest all of the claim limitations. Furthermore, the suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Applicants' disclosure.

With respect to the rejection of claims 1 through 6, 10 through 17, 21 through 27, 31 through 37, 41 through 49, 51 through 55, 57 through 64 and 66 through 73 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Satoh in view of Bennett, Applicants submit that no *prima facie* case of obviousness under 35 U.S.C. § 103 has been established regarding the claimed invention. Neither reference suggests any combination thereof whatsoever. Furthermore, the proposed combination of the cited prior art fails to teach a claim limitation required by all of Applicant's claimed inventions: the attachment of a tape with an adhesive and

a backing to the active surface of the wafer.

Applicants respectfully submit that the argument in the Office Action is based on an erroneous reading of Satoh. It is asserted on page 3 of the Office Action, first paragraph, that “the adhering face of an adhesive member, such as tape, is applied to the active face of the wafer, thereby covering and protecting the bumps and the other face is attached to a table (wafer mount) by vacuum filtration (suction).” In order for this statement to conform to Applicants’ claimed inventions, the assertion must mean that the adhesive member is directly attached to the active face of the wafer as such a claim limitation of such an attachment is required by all of Applicants’ independent claims (claims 1, 12, 23, 33, 45, 51, 57 and 67). Claim 33 has been amended to so require. Furthermore, this requirement should not be interpreted to be fulfilled by an adhesive attached only to bumps. Each of claims 33, 45 and 51 (as written) specifically and separately call for attachment of the adhesive tape to bumps *and* surface. The separateness and independence of the two requirements is further reinforced by the language of Applicants’ independent claims, which goes so far as to indicate a “surface” with separate reference to “bumps” which are “on” the surface. Thus it is clear that with respect to Applicants claims, touching the bumps is not and cannot be equivalent to touching the surface.

However, the surface of Satoh is covered by a “protective resin” which blankets the entire exposed active surface. All embodiments require the resin. See Abstract; Col. 3, lines 37-39; Col. 6, lines 1-3; Col. 7, lines 32-40; Figs. 1B-1D, 6-12, and 13D-14C. This resin prevents the adhesive tape from contacting the active surface, and thus the element is not taught by the combination of references. It should be noted that although Satoh loosely refers to the adhesive member contacting the “active face,” such as at Col. 10, lines 10-15, a contextual analysis will yield that the tape is unable to contact the surface of the wafer due to the resin. Thus, the combination of Satoh with Bennett does not teach an adhesive tape which touches the surface of the wafer.

The above is based upon the presumption that the assertion in the Final Rejection considers the “second adhesive tape” of Satoh to be the adhesive tape of Applicants’ claims(see Fig. 1C). The presumption is based upon the first sentence of the second full paragraph on page three of the Office Action. In that text, the action refers to Column 10, lines 10-16 of Satoh.

However, the reference in the preceding paragraph to Col 3, lines 27-50 makes it seem as if it is asserted that protective resin might be the adhesive member, followed by the "obviousness" of including the backing of Bennett. However, Satoh strongly teaches away from making such a combination. Satoh teaches or suggests the application of the resin as a low viscosity substance in order to fill narrow grooves in the wafer. Layers of higher viscosity resin are then applied over the low viscosity resin. Col. 7, lines 40-46. This method of application is not consistent with the Application of the resin as a single layer attached to a backing, as would be required to be within the purview of Applicants' claims. Such a single layer application would be unable to completely fill the narrow grooves on Satoh's wafer surface. The filling the grooves is required by Satoh. See Abstract; Col. 3, lines 37-39; Col. 6, lines 1-3; Col. 7, lines 32-40; Figs. 1B-1D, 6-12, and 13D-14C. Unlike the sequential steps disclosed by Satoh, the method of applying the resin as a single layer attached to a backing would not allow the air to escape from the grooves and be supplanted by the resin.

Applicants have amended claims 1, 12, 23, 33, 45 and 67. Of these amendments, only the amendment to claim 33, which additionally requires the attachment of the adhesive tape to the wafer surface, is substantial.

With respect to the rejection of claims 7 through 9, 18 through 20, 28 through 30, 38 through 40, 50, 56, 65, 74 and 75 under 35 U.S.C. § 103(a) as being unpatentable over Satoh in view of Bennett as applied above, and further in view of the admitted prior art, Applicant respectfully submits that, as set forth above, the combination of Satoh with Bennett is flawed, as is the further combination with admitted prior art and cannot and does not establish a *prima facie* case of obviousness under 35 U.S.C. § 103 regarding the claimed invention..

Applicants thus respectfully submit that claims 1, 12, 23, 33, 45, 51, 57 and 67 are clearly allowable over the cited prior art. Furthermore, claims 2 through 11, 13 through 22, 24 through 32, 34 through 44, 46 through 50, 52 through 56, 58 through 66, and 68 through 75 are allowable as depending from allowable claims.

Applicants request entry of this amendment for the following reasons:

The amendment is timely filed.


The amendment does not require any further search or consideration.

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The amendment places the application in condition for allowance.

In summary, Applicants request the entry of this amendment, allowance of claims 1 through 75, and the case passed for issue.

Respectfully submitted,



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